

FIG. 1

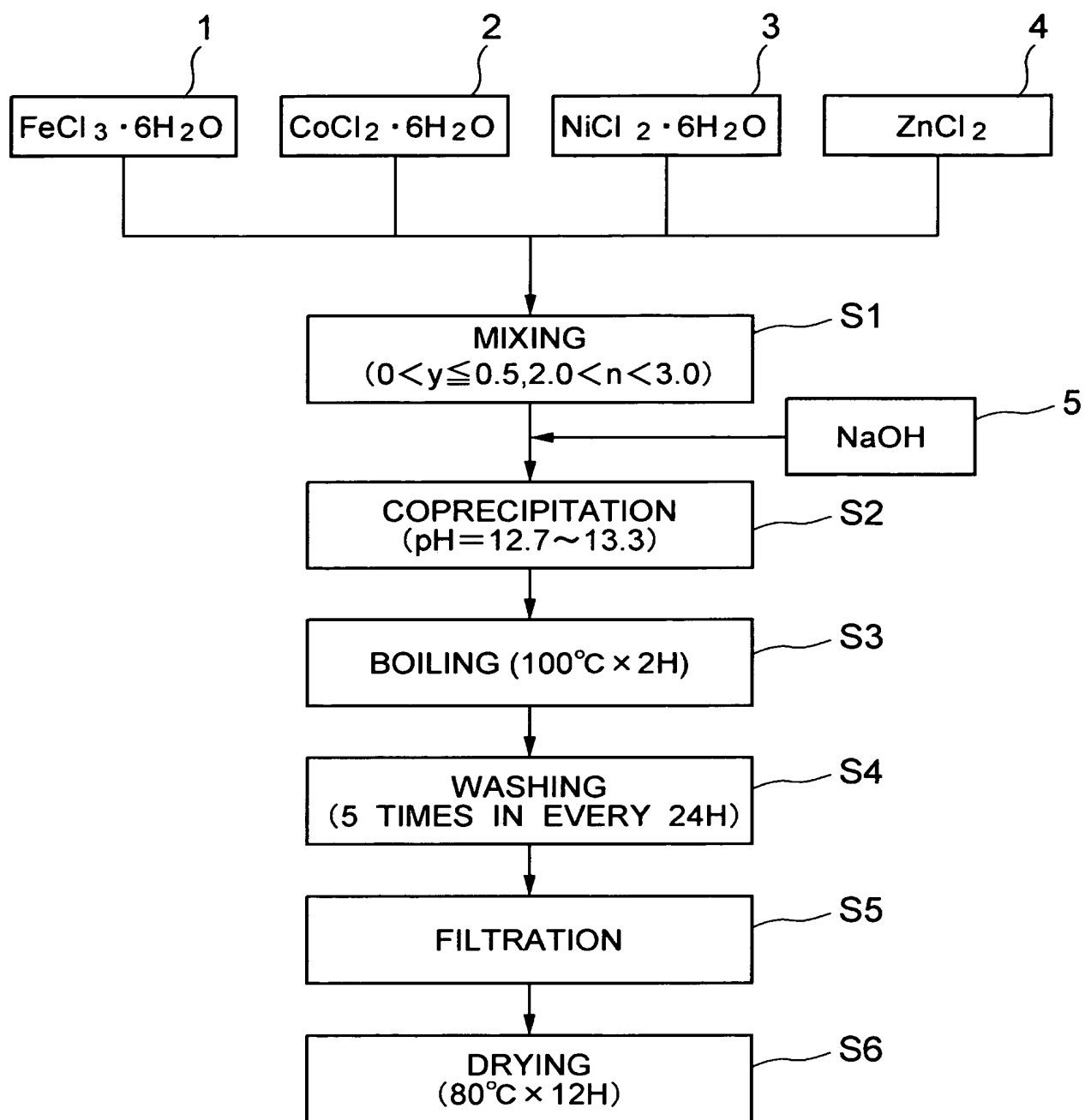


FIG. 2

EXAMPLES	Fe ³⁺ CONCENTRATION (mol/l)	MOUNT OF Fe ³⁺ SOLUTION (ml)	Co ²⁺ CONCENTRATION (mol/l)	MOUNT OF Co ²⁺ SOLUTION (ml)	Ni ²⁺ CONCENTRATION (mol/l)	MOUNT OF Ni ²⁺ SOLUTION (ml)	Zn ²⁺ CONCENTRATION (mol/l)	MOUNT OF Zn ²⁺ SOLUTION (ml)	pH VALUE OF PRECIPITATION SLURRY (pH)	Fe/(Co +Ni+Zn) n- MOLAR RATIO	ZnO SUBSTITUTION AMOUNT (x+y)
1-2	0.25	200	0.1	100	0.1	90	0.1	10	13.0	2.5	0.05
2-2	0.225	200	0.1	100	0.1	90	0.1	10	13.0	2.25	0.05
2-3	0.25	200	0.1	100	0.1	90	0.1	10	13.0	2.5	0.05
2-4	0.275	200	0.1	100	0.1	90	0.1	10	13.0	2.75	0.05
3-2	0.25	200	0.1	100	0.1	90	0.1	10	13.0	2.5	0.05
3-3	0.25	200	0.1	100	0.1	90	0.1	10	13.3	2.5	0.05

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FIG. 3

EXAMPLES	COERCIVITY H_{cJ} (kA/m)	SATURATION MAGNETIZATION σ_S (Wb·m/kg)	REMANENT MAGNETIZATION σ_r (Wb·m/kg)
1—2	372.0	62.0×10^{-6}	36.6×10^{-6}
2—2	330.4	61.9×10^{-6}	36.6×10^{-7}
2—3	372.0	62.0×10^{-6}	36.6×10^{-6}
2—4	425.8	43.3×10^{-6}	19.5×10^{-6}
3—2	372.6	62.0×10^{-6}	36.6×10^{-6}
3—3	372.9	62.8×10^{-6}	37.0×10^{-6}

FIG. 4

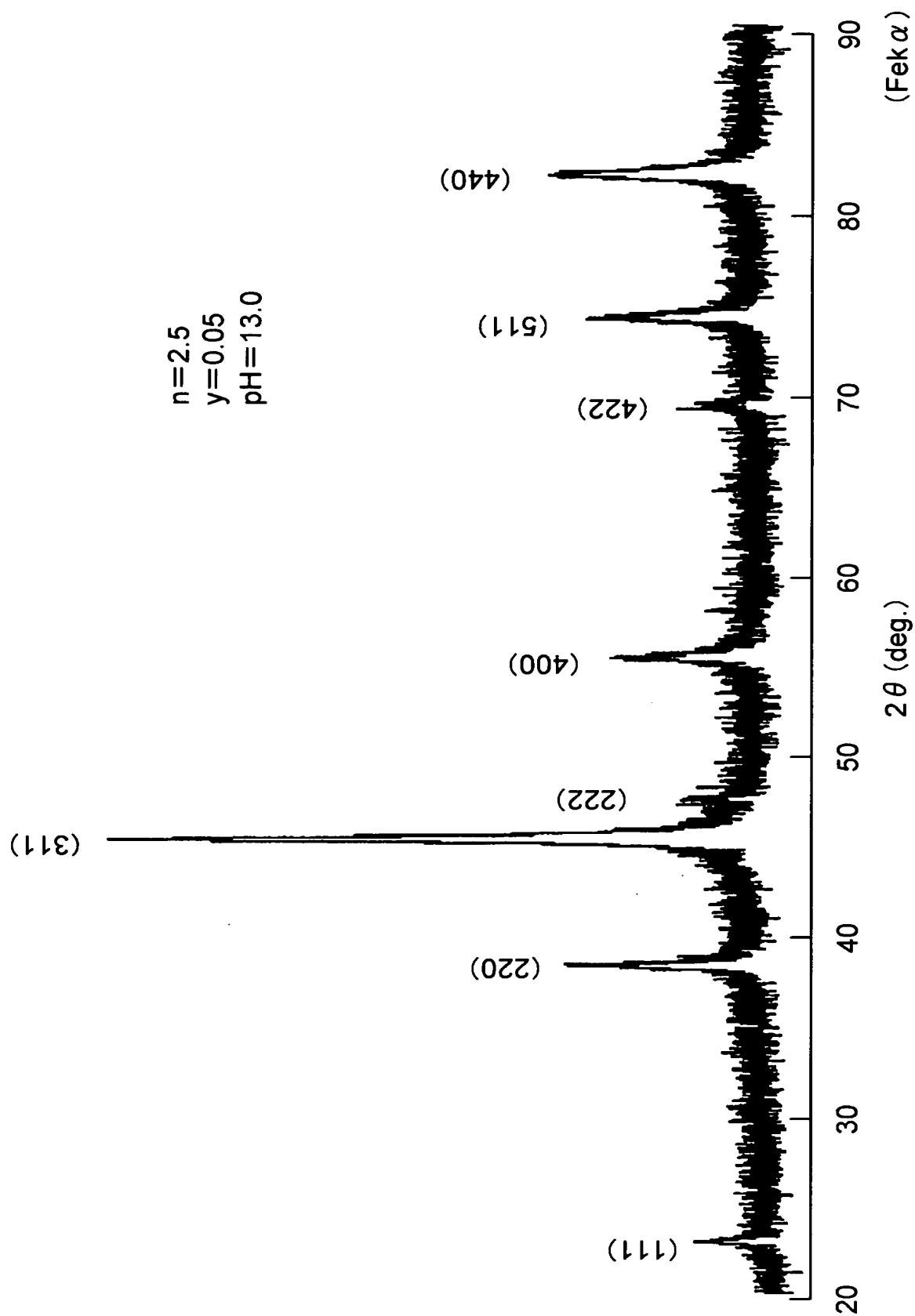


FIG. 5

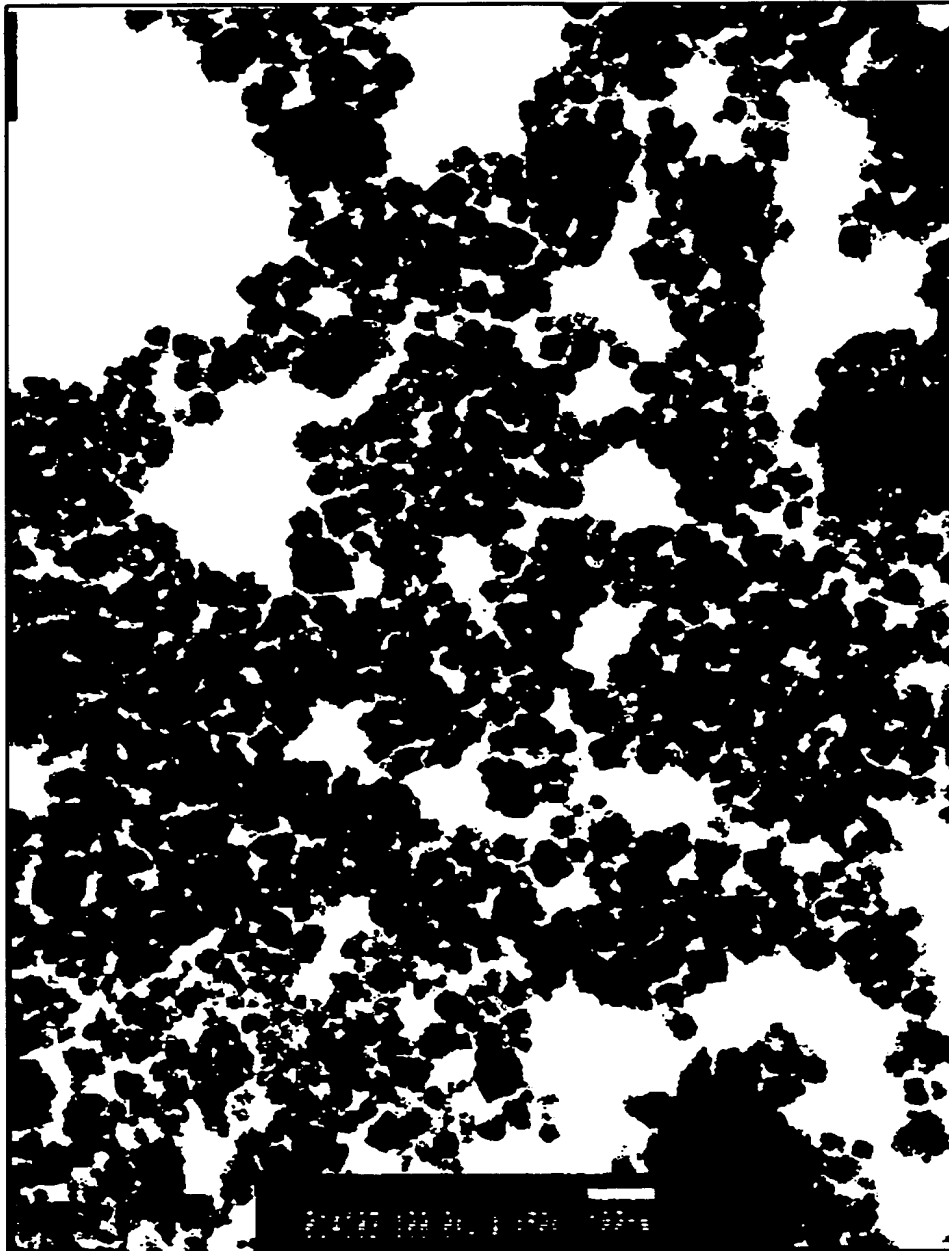


FIG. 6

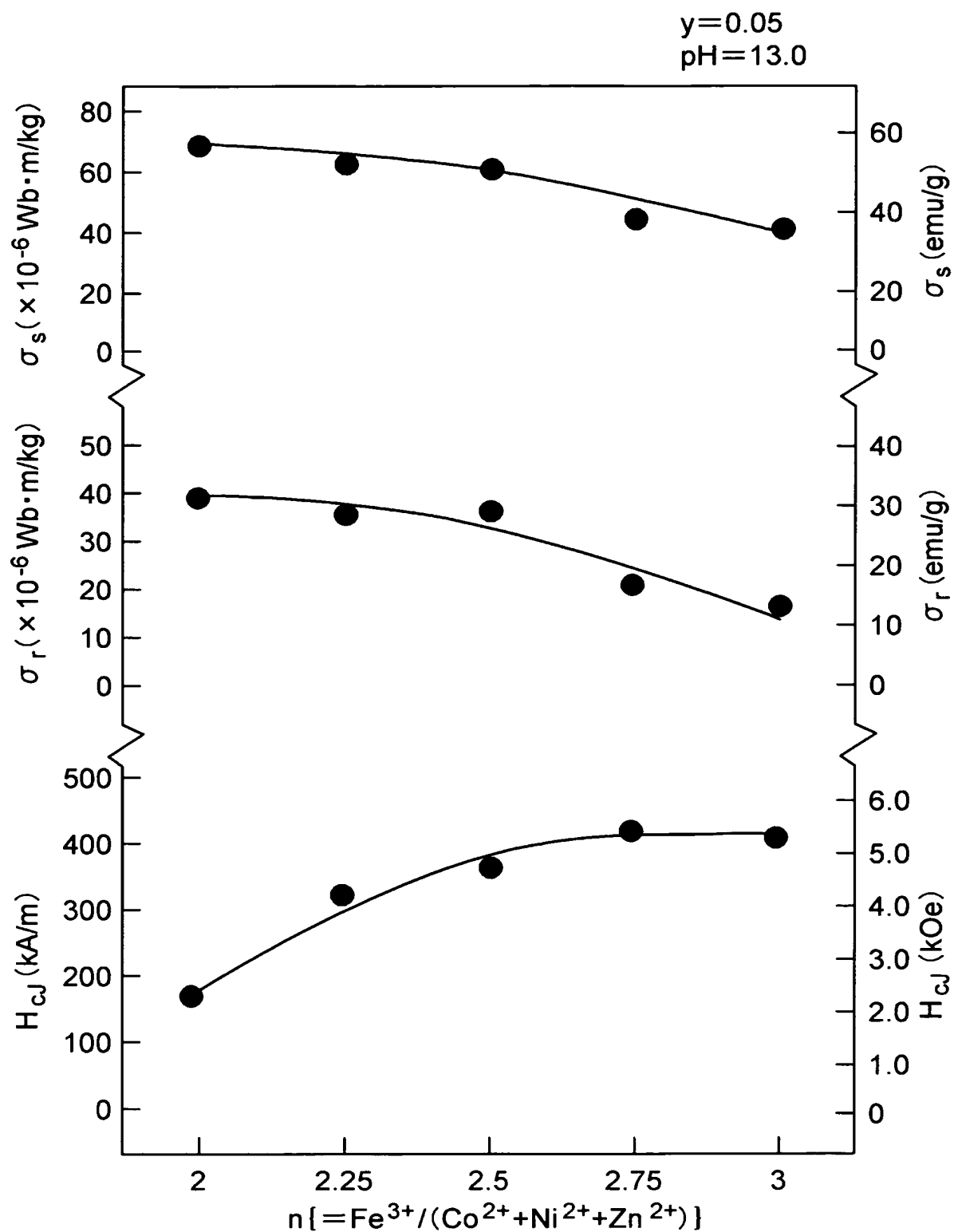


FIG. 7

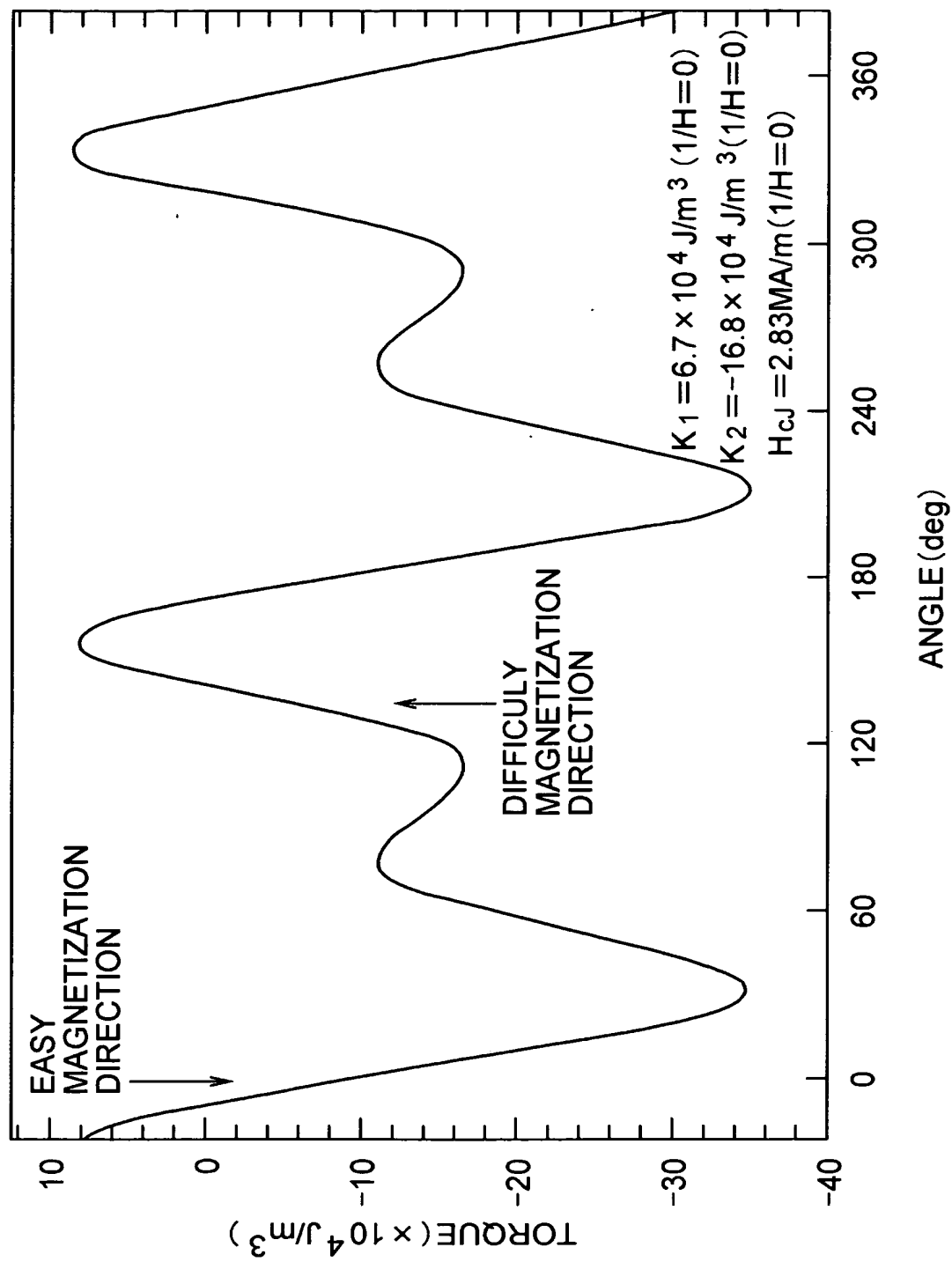


FIG. 8

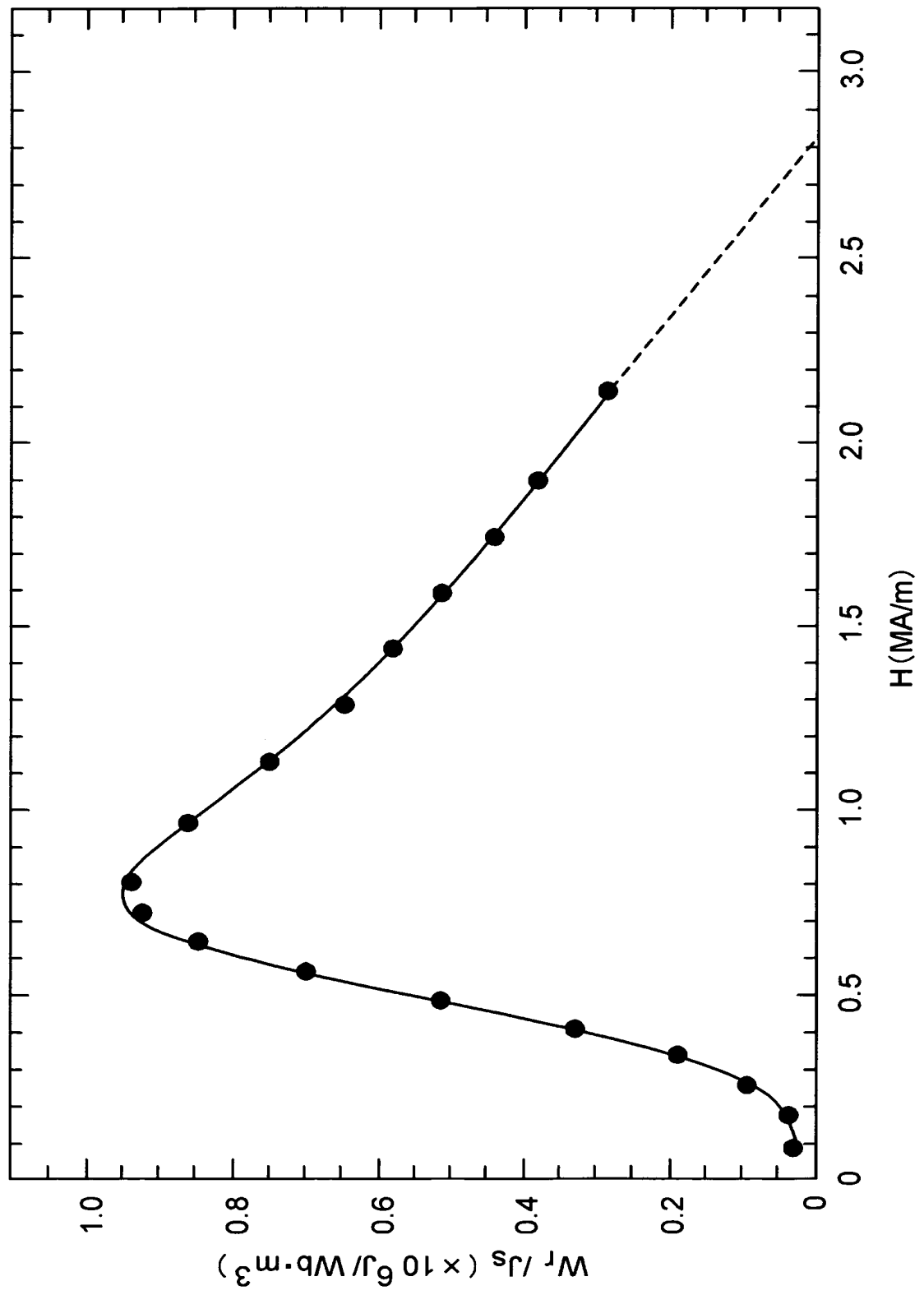


FIG. 9

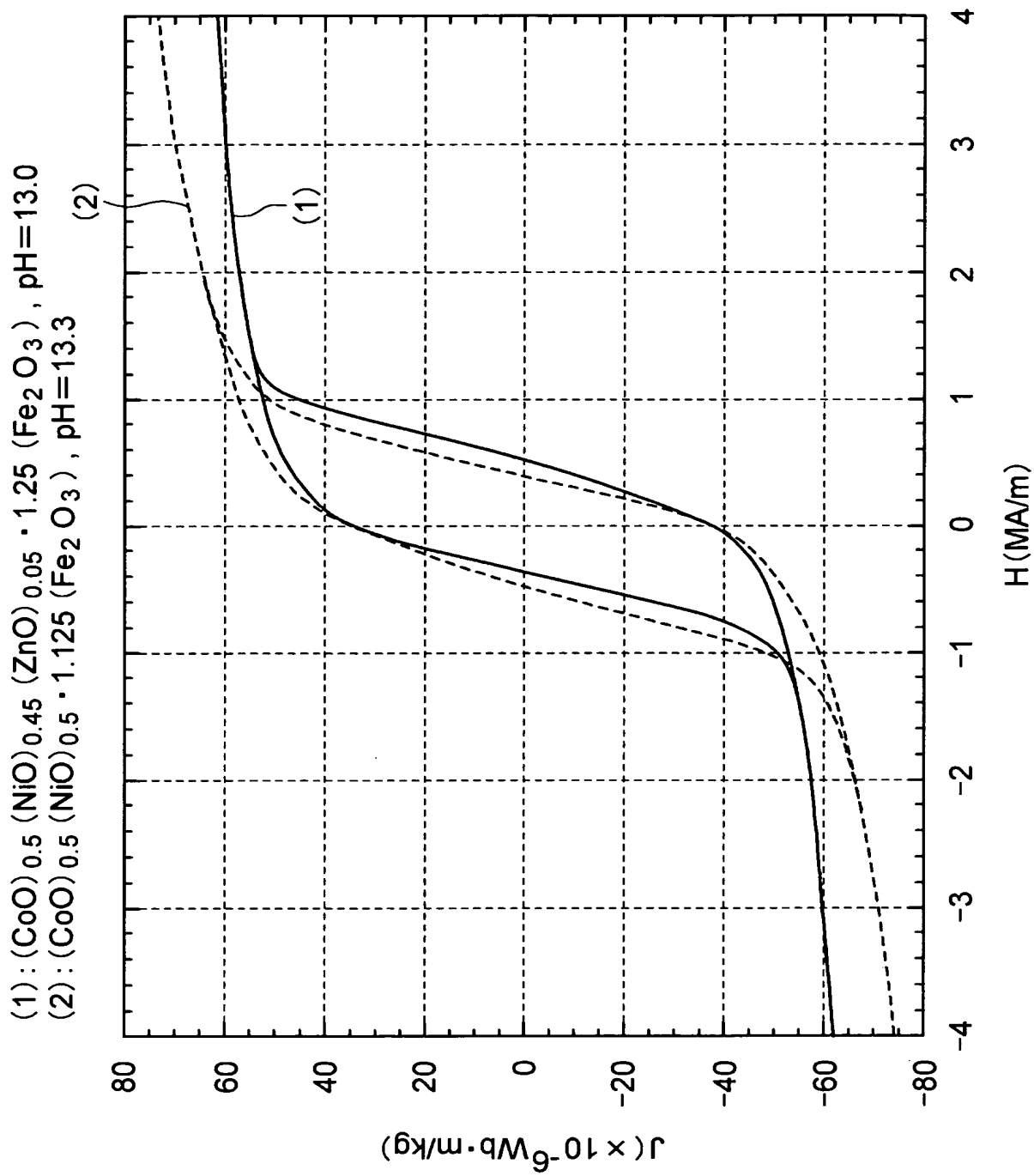


FIG.10

Fe / (Co +Ni+Mn) (n-MOLAR RATIO)	pH VALUE OF PRECIPITATION SLURRY (pH)	MnO SUBSTITUTION AMOUNT (X+Y)	COERCIVITY H _{CJ} (kA/m)	SATURATION MAGNETIZATION σ_s (Wb·m/kg)	REMANENT MAGNETIZATION σ_r (Wb·m/kg)
2.25	13.3	0.05	529.2	55.9×10^{-6}	30.7×10^{-6}
2.25	13.3	0.075	561.9	52.7×10^{-6}	28.1×10^{-6}
2.25	13.3	0.1	567.5	55.5×10^{-6}	30.2×10^{-6}
2.25	13.3	0.125	589.7	55.5×10^{-6}	30.2×10^{-6}
2.25	13.3	0.15	566.6	55.3×10^{-6}	29.9×10^{-6}
2.25	13.3	0.175	582.0	58.0×10^{-6}	32.2×10^{-6}
2.25	13.3	0.2	496.7	61.8×10^{-6}	34.9×10^{-6}
2.25	13.3	0.3	356.6	66.0×10^{-6}	36.4×10^{-6}
2.25	13.0	0.05	461.4	52.3×10^{-6}	29.5×10^{-6}
2.25	13.0	0.1	432.9	56.1×10^{-6}	31.7×10^{-6}
2.25	13.0	0.2	371.7	59.5×10^{-6}	33.3×10^{-6}
2.25	13.0	0.3	247.5	64.1×10^{-6}	34.6×10^{-6}

FIG.11

Fe / (Co +Ni+Mn) (n-MOLAR RATIO)	pH VALUE OF PRECIPITATION SLURRY (pH)	MnO SUBSTITUTION AMOUNT (X+Y)	COERCIVITY H _{cJ} (kA/m)	SATURATION MAGNETIZATION σ_s (Wb·m/kg)	REMANENT MAGNETIZATION σ_r (Wb·m/kg)
2.5	13.3	0.05	556.0	45.4×10^{-6}	21.8×10^{-6}
2.5	13.3	0.1	561.5	45.0×10^{-6}	20.6×10^{-6}
2.5	13.3	0.2	530.1	45.4×10^{-6}	20.4×10^{-6}
2.5	13.3	0.3	415.1	57.6×10^{-6}	28.5×10^{-6}
2.5	13.3	0.4	247.8	66.1×10^{-6}	33.9×10^{-6}
2.5	13.0	0.05	555.2	40.7×10^{-6}	19.4×10^{-6}
2.5	13.0	0.1	527.1	46.8×10^{-6}	23.9×10^{-6}
2.5	13.0	0.2	437.0	54.0×10^{-6}	28.4×10^{-6}
2.5	13.0	0.3	282.2	60.5×10^{-6}	31.5×10^{-6}
2.25	13.0	0.4	208.7	62.7×10^{-6}	30.9×10^{-6}

FIG.12

Fe / (Co+Ni+Mn) (n-MOLAR RATIO)	pH VALUE OF PRECIPITATION SLURRY (pH)	MnO SUBSTITUTION AMOUNT (X+Y)	COERCIVITY H _{cJ} (kA/m)	SATURATION MAGNETIZATION σ_s (Wb·m/kg)	REMANENT MAGNETIZATION σ_r (Wb·m/kg)
2.75	13.3	0.05	501.8	39.4×10^{-6}	35.3×10^{-6}
2.75	13.3	0.1	513.8	38.9×10^{-6}	41.6×10^{-6}
2.75	13.3	0.2	498.0	39.7×10^{-6}	47.0×10^{-6}
2.75	13.3	0.3	476.2	49.6×10^{-6}	50.3×10^{-6}
2.75	13.3	0.4	339.1	54.8×10^{-6}	57.9×10^{-6}
2.75	13.0	0.05	503.6	35.3×10^{-6}	13.8×10^{-6}
2.75	13.0	0.1	516.5	41.6×10^{-6}	19.1×10^{-6}
2.75	13.0	0.2	454.9	47.0×10^{-6}	22.2×10^{-6}
2.75	13.0	0.3	398.3	50.3×10^{-6}	23.9×10^{-6}
2.75	13.0	0.4	235.4	57.9×10^{-6}	27.5×10^{-6}